

METHOD AND APPARATUS FOR PROVIDING MULTI-CAST TRANSMISSIONS USING A DISTRIBUTED ROUTER

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Abstract of the Disclosure

A method and apparatus that includes processing for providing multi-cast transmissions within a data network begins by determining, for a source virtual network, a list of downstream virtual sub-networks for multi-cast traffic based on a multi-cast routing protocol. The processing then continues by determining multi-cast group membership on as per downstream virtual sub-network, edge device, and port basis. The process continues when a data packet is received via the source virtual network. The processing then continues by generating a multi-cast session table entry based on the list of downstream virtual sub-networks and the multi-cast group membership. The process continues by establishing virtual connections between the source virtual network and edge devices coupled to virtual sub-networks identified in the list of downstream virtual sub-networks. Having generated the virtual connections, the processing continues by downloading the multi-cast session table to the edge devices. The edge devices utilize the multi-cast session table entry to determine where the received data packets are to be forwarded.